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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,715	08/12/2003	Jen-Yu Hsu	LITP0004USA	1714

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EXAMINER

DANIELSEN, NATHAN ANDREW

ART UNIT	PAPER NUMBER
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2627

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/604,715	Applicant(s) HSU ET AL.	
	Examiner Nathan Danielsen	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-10 are pending.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4 and 6-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (US Patent 5,808,993).

Regarding claims 1 and 7-10, Lee discloses a method for discriminating optical media type for an optical drive to discriminate the type of optical media rapidly, the optical drive comprising a reading unit capable of converging a laser beam to a light spot, the method comprising:

- (a) positioning a reading unit of the optical drive at a first position (indicated by the unlabeled dotted line in figures 4A and 5A);
- (b) moving the reading unit to a second position (positive peak of figures 4A and 5A) so that the light spot passes over a data layer of the optical media (indicated by the first S-curve in each of figures 4B and 5B);
- (c) continuing recording the reflection of the laser beam to obtain a first time when the reflection is larger than a predetermined reflection (first pulse in each of figures 4C and 5C);

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- (d) moving the reading unit back to the first position so that the light spot passes over the data layer of the optical media (figures 4A and 5A);
- (e) continuing recording the reflection of the laser beam to obtain a second time when the reflection is larger than a predetermined reflection (indicated by the second S-curve in each of figures 4B and 5B); and
- (f) calculating a time difference between the second time and the first time (indicated by the second and third vertical lines in figures 4 and 5)) difference between and comparing the time difference with at least one predetermined time (window signal) in order to discriminate the type of the optical media (it should also be noted that it is well known in the art that the point at which a maximum amount of light is reflected from a disk or recording surface is the same point as the zero-cross point in a focus error S-curve, as shown by Yamada et al in US Patent 5,831,952, figure 2).

Further regarding claim 9, it is included in this rejection because it is well known that the distance an optical pickup moves and the time during which it moves are both functions of the velocity of the pickup, thus knowing the velocity of the pickup and calculating the time between reflection peaks will result in the ability to calculate the distance traveled.

Regarding claim 2, Lee discloses the method of claim 1 wherein the optical media is an optical disk, and the optical drive is an optical disk drive (indicated by the presence of a play key, the input of which is shown in figure 3).

Regarding claim 3, Lee discloses the method of claim 2 wherein the reading unit is a pickup head (figure 1).

Regarding claim 4, Lee discloses the method of claim 3 wherein the first position is a mechanical upper limit, the second position is a mechanical lower limit, and the moving direction

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in step (b) is away from the disk (in light of Applicant's definition of the mechanical upper limit being a focal position beyond the data surface as seen by the laser beam source and the mechanical lower limit being a focal position before the data surface as seen by the laser beam source, Lee discloses the features of this claim in figures 4A and 5A).

Regarding claim 6, Lee discloses the method of claim 2 wherein the disk type can be distinguished by comparing the time difference between the second time and the first time with a predetermined time ("the disk type can be discriminated between a CD and a DVD, based on the difference in timing when the S-shaped curve appears on the focus error signal" (col. 4, lines 57-60)).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee, in view of Kamiyama et al (hereinafter Kamiyama) (US Patent 6,327,234).

Regarding claim 5, Lee discloses everything claimed, as applied to claim 3, However, Lee fails to disclose where the first position is a mechanical lower limit, the second position is a mechanical upper limit, and the moving direction in the step (b) is toward to the disk.

In the same field of endeavor, Kamiyama discloses where the first position is a mechanical lower limit, the second position is a mechanical upper limit, and the moving direction in the step (b) is toward to the disk (figure 2 where UH is defined as "the closest position of the lens to the optical disc 20" and UL is defined as "the farthest position of the lens from the disc" (col. 4, lines 38-42)).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have moved the objective lens from one mechanical limit to the other, as taught by Kamiyama, for the purpose of properly discriminating a CD and a DVD (col. 2, lines 31-35).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 8:30 AM - 4:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A.L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nathan Danielsen
03/24/2006

ND


ANDREA WELLINGTON
SUPERVISORY PATENT EXAMINER